

1. PROJECT INFORMATION

Project Name: **MHIC**

Date of Review: **6/21/2017 02:42:15 PM**

Project Category: **Hazardous Waste Clean-up, Site Remediation, and Reclamation, Spill (e.g., oil, chemical)**

Project Area: **490.21 acres**

County(s): **Delaware**

Township/Municipality(s): **LOWER CHICHESTER; MARCUS HOOK**

ZIP Code: **19061**

Quadrangle Name(s): **MARCUS HOOK**

Watersheds HUC 8: **Lower Delaware**

Watersheds HUC 12: **Oldmans Creek-Delaware River; Repaupo Creek-Delaware River**

Decimal Degrees: **39.814616, -75.423936**

Degrees Minutes Seconds: **39° 48' 52.6158" N, 75° 25' 26.1678" W**

2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

MHIC

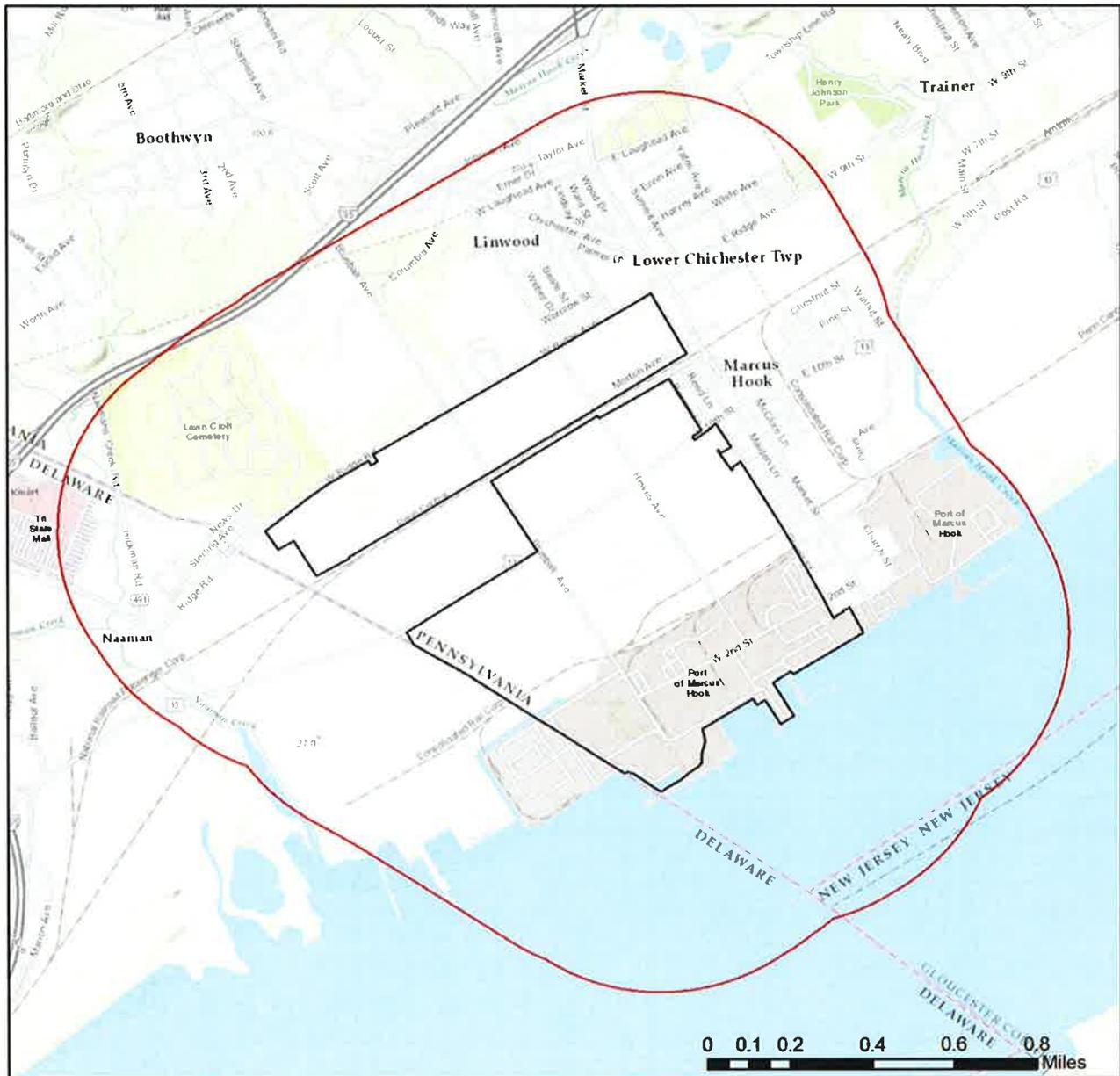


- Project Boundary
- Buffered Project Boundary



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user

MHIC



- Project Boundary
- Buffered Project Boundary

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RESPONSE TO QUESTION(S) ASKED

Q1: Will the entire project area (including any discharge), plus a 300 feet buffer around the project area, all occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, railroad bed, maintained (periodically mown) lawn, crop agriculture field or maintained orchard?

Your answer is: No

Q2: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: The project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

Q3: Aquatic habitat (stream, river, lake, pond, etc.) is located on or adjacent to the subject property and project activities (including discharge) may occur within 300 feet of these habitats?

Your answer is: Unknown

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: http://www.gis.dcnr.state.pa.us/hgis-er/PNDI_DCNR.aspx.)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Agalinis paupercula	Small-flowered False-foxglove	Endangered	Endangered	fl. Aug-Sept.

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Baccharis halimifolia	Eastern Baccharis	Special Concern Species*	Special Concern Species*	aug-oct
Eupatorium rotundifolium	A Eupatorium	Special Concern Species*	Special Concern Species*	flowers late June through October
Euthamia tenuifolia	Grass-leaved Goldenrod	Threatened	Endangered	Flowers July - October
Juncus biflorus	Grass-leaved Rush	Special Concern Species*	Special Concern Species*	Frts July - to early November
Leucothoe racemosa	Swamp Dog-hobble	Special Concern Species*	Special Concern Species*	flowers late May - early June
Quercus phellos	Willow Oak	Endangered	Endangered	Leaves distinctive
Sensitive Species**		Special Concern Species*	Endangered	

PA Fish and Boat Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name	Common Name	Current Status
Sensitive Species**		Endangered
Sensitive Species**		Endangered
Sensitive Species**		Threatened

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

A map with the project boundary and/or a basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

SIGNED copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

PA Game Commission

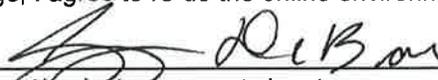
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Jenny DeBoer
Company/Business Name: Stantec Consulting Services, Inc
Address: 1060 Andrew Drive, Suite 140
City, State, Zip: West Chester, PA 19380
Phone: (610) 209-2511 Fax: ()
Email: Jenny.DeBoer@stantec.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.


applicant/project proponent signature

6/22/17
date



June 21, 2017

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street
P.O. Box 8552
Harrisburg, PA, 17105-8552

Reference: Potential PNDI Conflict
Marcus Hook Industrial Complex
PNDI Search ID: PNDI-633107
Marcus Hook Borough and Lower Chichester Township
Delaware County, Pennsylvania

Dear Sir/Madam,

Stantec Consulting Services, Inc. (Stantec) is currently preparing Site Characterization Reports (SCRs) on behalf of Sunoco Partners Marketing and Terminals L.P. (SPMT) and Marcus Hook Refinery Operations, a series of Evergreen Resources Group, LLC (Evergreen) for select aboveground storage tanks located in Marcus Hook Industrial Complex (facility) located at 100 Green Street in Marcus Hook, Delaware County, Pennsylvania (**Figure 1**) in response to tank related incidents. Additionally, the facility is part of the One Cleanup Program which provides a mechanism for properties participating in the Pennsylvania Land Recycling Program to also satisfy the requirements of the Environmental Protection Agency (EPA) Corrective Measures program. As a part of this program, Stantec is currently preparing Remedial Investigation Reports (RIRs) to establish the current conditions of the facility and investigate environmental impacts resulting from historical refining operations.

The storage tank Corrective Action Process (CAP) regulations in 25 PA Code Chapter 245, Subchapter D, specifically §245.310(a)(28) and §245.310(b)(4), and the Land Recycling Program regulations in 25 PA Code Chapter 250, specifically §250.311 and §250.402, require an evaluation of ecological receptors at the facility. According to the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Tool search (PNDI Search ID: PNDI-633107), potential impacts may exist within the project site under the jurisdiction of the Pennsylvania Department of Conservation and Natural Resources (PADCNR). The search identified the following as endangered or species of special concern within the project area:

- Small-flowered false-foxglove (*agalinis paupercula*),
- Eastern baccharis (*baccharis halimifolia*),
- A eupatorium (*Eupatorium rotundifolium*),
- Grass-leaved goldenrod (*euthamia tenuifolia*),
- Grass-leaved rush (*juncus biflorus*),



June 21, 2017
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Reference: Potential PNDI Conflict
Marcus Hook Industrial Complex
PNDI Search ID: PNDI-633107
Marcus Hook Borough, Delaware County, Pennsylvania

- Swamp dog-hobble (*leucothoe racemosa*),
- Willow oak (*quercus phellos*), and
- One undisclosed sensitive species

A copy of the PNDI Project Environmental Review Receipt is attached.

The facility is located on industrial property with access restricted by fencing and security measures. The portion of the facility located in Pennsylvania is bordered by Ridge Road to the northwest, industrial properties and the Pennsylvania/Delaware state boundary to the southwest, the Delaware River to the southeast, and residential and commercial properties to the northeast (**Figure 2**). The Areas of Interest (AOIs) 1 through 6 of the Marcus Hook Industrial Complex encompass approximately 490 acres within Pennsylvania. Groundwater generally flows to the southeast toward the Delaware River. Middle Creek runs through the site and is primarily buried beneath the facility in a conveyance system. The creek daylight in the vicinity of the Middle Creek Hydraulic Control System. The current and intended future uses for the facility are non-residential.

We request a determination from the PADCNR as to whether or not projects at this facility could affect sensitive species as identified by the PNDI Environmental Project Review PADCNR jurisdiction. If you have questions on the enclosed material or require any additional information to make your determination, please feel free to contact me at (610) 209-2511.

Regards,

STANTEC CONSULTING SERVICES INC.

Jenny DeBoer, P.G.
Geologist
1060 Andrew Drive, Suite 140
West Chester, PA 19380
Phone: 610-209-2511
jenny.deboer@stantec.com



June 21, 2017

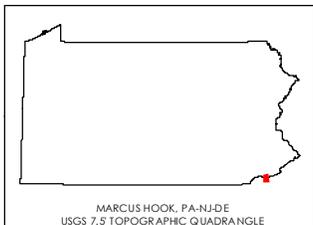
Page 3 of 3

Reference: Potential PNDI Conflict
Marcus Hook Industrial Complex
PNDI Search ID: PNDI-633107
Marcus Hook Borough, Delaware County, Pennsylvania

Attachment: PNDI Project Environmental Review Receipt
Figure 1 – Site Location Map
Figure 2 – Site Plan

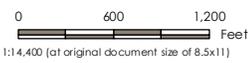
c. Stantec Project File
Evergreen Project File

DRAFT



LEGEND

- MARCUS HOOK INDUSTRIAL COMPLEX (PENNSYLVANIA) CENTROID COORDINATES
- MARCUS HOOK INDUSTRIAL COMPLEX (PENNSYLVANIA) BOUNDARY
- AREA OF INTEREST (AOI) BOUNDARY



Project Location
 Marcus Hook Borough & Lower Chichester Township, Delaware County, PA
 Prepared by GWC on 6/12/2017
 Technical Review by JKD on 6/13/2017
 Independent Review by JLM on 6/15/2017

Client/Project
 SUNOCO PARTNERS MARKETING AND TERMINALS LP, & EVERGREEN RESOURCES MANAGEMENT OPERATIONS
 MARCUS HOOK INDUSTRIAL COMPLEX

Figure No. **1** **DRAFT**

SITE LOCATION MAP

- Notes**
1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
 2. Sources: Stantec, USGS, PNDI
 3. Coordinates generated on Pennsylvania Natural Diversity Inventory search PNDI - 463107 are 39° 48' 52.6158" N, 75° 25' 26.1678" W
 4. Topo Source: Copyright © 2013 National Geographic Society, i-cubed

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- Legend**
- MARCUS HOOK INDUSTRIAL COMPLEX (PENNSYLVANIA)
 - CENTROID COORDINATES
 - ◆ NOT YET SURVEYED
 - ◆ MONITORING WELL
 - ◆ RECOVERY WELL
 - ◆ SUMP AND RECOVERY SUMP WELL
 - ◆ DAMAGED WELL
 - ◆ DESTROYED WELL
 - ◆ UNABLE TO LOCATE WELL
 - ◆ ACTIVE REMEDIATION SYSTEM
 - PENNSYLVANIA DELAWARE STATE BOUNDARY
 - MARCUS HOOK INDUSTRIAL COMPLEX (PENNSYLVANIA) BOUNDARY
 - SITE AND AOI BOUNDARY
 - PENNSYLVANIA MUNICIPALITY BOUNDARY



Notes

1. Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet
2. Sources: Stantec; PND
3. Coordinates generated on Pennsylvania Natural Diversity Inventory search PNDI - 663107 are 39° 48' 52.6158\"/>

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June 21, 2017

PA Fish and Boat Commission
Division of Environmental Services
595 East Rolling Ridge Drive
Bellefonte, PA 16823

Reference: Potential PNDI Conflict
Marcus Hook Industrial Complex
PNDI Search ID: PNDI-633107
Marcus Hook Borough and Lower Chichester Township
Delaware County, Pennsylvania

Dear Sir/Madam,

Stantec Consulting Services, Inc. (Stantec) is currently preparing Site Characterization Reports (SCRs) on behalf of Sunoco Partners Marketing and Terminals L.P. (SPMT) and Marcus Hook Refinery Operations, a series of Evergreen Resources Group, LLC (Evergreen) for select aboveground storage tanks located in Marcus Hook Industrial Complex (facility) located at 100 Green Street in Marcus Hook, Delaware County, Pennsylvania (**Figure 1**) in response to tank related incidents. Additionally, the facility is part of the One Cleanup Program which provides a mechanism for properties participating in the Pennsylvania Land Recycling Program to also satisfy the requirements of the Environmental Protection Agency (EPA) Corrective Measures program. As a part of this program, Stantec is currently preparing Remedial Investigation Reports (RIRs) to establish the current conditions of the facility and investigate environmental impacts resulting from historical refining operations.

The storage tank Corrective Action Process (CAP) regulations in 25 PA Code Chapter 245, Subchapter D, specifically §245.310(a)(28) and §245.310(b)(4), and the Land Recycling Program regulations in 25 PA Code Chapter 250, specifically §250.311 and §250.402, require an evaluation of ecological receptors at the facility. According to the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Tool search (PNDI Search ID: PNDI-633107), potential impacts may exist within the project site under the jurisdiction of the Pennsylvania Fish and Boat Commission (PA FBC). The search identified three undisclosed sensitive species as endangered and /or threatened within the general project area. A copy of the PNDI Project Environmental Review Receipt is attached. In addition, a species impact review (SIR) request form is also submitted, which provides necessary information to conduct a database search for species of special concern listed under the Endangered Species Act, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code, or the Wildlife Code.

The facility is located on industrial property with access restricted by fencing and security measures. The portion of the facility located in Pennsylvania is bordered by Ridge Road to the



June 21, 2017
Page 2 of 2

Reference: Potential PNDI Conflict
Marcus Hook Industrial Complex
PNDI Search ID: PNDI-633107
Marcus Hook Borough, Delaware County, Pennsylvania

northwest, industrial properties and the Pennsylvania/Delaware state boundary to the southwest, the Delaware River to the southeast, and residential and commercial properties to the northeast (**Figure 2**). The Areas of Interest (AOIs) 1 through 6 of the Marcus Hook Industrial Complex encompass approximately 490 acres within Pennsylvania. Groundwater generally flows to the southeast toward the Delaware River. Middle Creek runs through the site and is primarily buried beneath facility in a conveyance system. The creek daylights in the vicinity of the Middle Creek Hydraulic Control System. The current and intended future uses of the facility are non-residential.

We request a determination from the PA FBC as to whether or not projects at this facility could affect sensitive species as identified by the PNDI Environmental Project Review under PA FBC jurisdiction. If you have questions on the enclosed material or require any additional information to make your determination, please feel free to contact me at (610) 209-2511.

Regards,

STANTEC CONSULTING SERVICES INC.

Jenny DeBoer, P.G.
Geologist
1060 Andrew Drive, Suite 140
West Chester, PA 19380
Phone: 610-209-2511
jenny.deboer@stantec.com

Attachment: PNDI Project Environmental Review Receipt
Species Impact Review (SIR) Request Form (PA FBC)
Figure 1 – Site Location Map
Figure 2 – Site Plan

c. Stantec Project File
Evergreen Project File

COMMONWEALTH OF PENNSYLVANIA
FISH AND BOAT COMMISSION
 NATURAL DIVERSITY SECTION
SPECIES IMPACT REVIEW (SIR) REQUEST FORM

- A. This form provides the site information necessary to perform a computer database search for species of special concern listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, the Pennsylvania Fish and Boat Code or the Wildlife Code.
- B. Use only **one form** for each proposed project or location. Complete the information below and **mail** form to:

Natural Diversity Section
 Division of Environmental Services
 PA Fish and Boat Commission
 450 Robinson Lane
 Bellefonte, PA 16823
 Fax: (814) 359-5175

- C. This form, a cover letter including a project narrative, and accompanying maps should be sent to the above address for environmental reviews that **only** concern **reptiles, amphibians, fishes and aquatic invertebrates**. Reviews for other natural resources must be submitted to other appropriate agencies.
- D. The absence of recorded information from our databases and files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A review is valid for one year.
- E. **Please send us only one (1) copy of your request** – either by fax or by mail – not both. Mail is preferred to improve legibility of maps. Facsimile submission will not improve our response turn-around time.
- F. **Allow 30 days for completion of the review from the date of PFBC receipt**. Large projects and workload may extend this review timeframe.
- G. **In any future correspondence with us following your receipt of the SIR response, please refer to the assigned SIR number at the top left of our cover letter.**
- H. **FORMS THAT ARE NOT COMPLETED IN FULL WILL NOT BE REVIEWED.**

PLEASE PRINT OR TYPE: If available, provide the potential conflict **PNDI Search Number:** _____

PFBC response should be sent to:

Company/Agency: _____ Form Preparer: _____

Address: _____

Phone (8:00 AM to 4:00 PM): _____

Project Description: _____

Indicate if the project is: Transportation or Non-transportation (check one)

Will the proposed project encroach directly or indirectly (e.g., runoff) upon wetlands or waterways? Circle one for each:

Wetlands: Yes No Unknown Waterways: Yes No Unknown

County: _____ Township/Municipality: _____

Name of the United States Geological Survey (U.S.G.S.) 7.5 Minute Quadrangle Map where project is located: _____

Project size (in acres): _____

Attach an 8.5" by 11" photocopy (**DO NOT REDUCE**) of the section of the U.S.G.S. Quadrangle Map which identifies the project location. On this map, indicate the location of the project center (if linear, depict both ends) and outline the approximate boundaries of the project area.

Specify latitude/longitude of the project center. **Latitude:** _____ ° / _____ ' / _____ " N

Indicate latitude/longitude in degrees-minutes-seconds format only. **Longitude:** _____ ° / _____ ' / _____ " W

Three steps are needed to convert from decimal degrees to degrees-minutes-seconds: (1) Degrees will be the whole number. (2) To get minutes, multiply the decimal degree portion by 60. (3) Multiply the decimal minute portion by 60 to get seconds.

Example: (Latitude) 40.93748 = **40°**; 0.93748 x 60 = 56.2488' = **56'**; 0.2488 x 60 = 14.928 = **15"** = **40°56'15" N**

(Longitude) 75.94740 = **75°**; 0.94740 x 60 = 56.844' = **56'**; 0.844 x 60 = 50.64 = **51"** = **75°56'51" W**

FOR PFBC USE ONLY

SIR#	Quad Name	Data Source	Search Result-Potential Species Conflict	Action

June 30, 2017

PNDI Number: 633107

Avani Patel
Stantec Consulting
1060 Andrew Drive, Suite 140
West Chester, PA 19380
Email: avani.patel@stantec.com (hard copy will not follow)

Re: MHIC
Marcus Hook and Lower Chichester Township, Delaware County, PA

Dear Avani,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 633107 for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Jason Ryndock, Ecological Information Specialist, by phone (717-705-2822) or via email (c-jryndock@pa.gov).

Sincerely



Greg Podnieszinski, Section Chief
Natural Heritage Section



Pennsylvania Fish & Boat Commission

Division of Environmental Services

Natural Diversity Section
595 E Rolling Ridge Dr.
Bellefonte, PA 16823
814-359-5237

July 11, 2017

IN REPLY REFER TO

SIR# 48051

Stantec Consulting
Avani Patel
1060 Andrew Drive
West Chester, Pennsylvania 19380

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 633107_1
MHIC
DELAWARE County: Lower Chichester Township, Marcus Hook Borough**

Dear Avani Patel:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search “potential conflict” or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

Rare or protected fish species are known from the vicinity of the project site. We are concerned about direct and indirect (i.e., runoff) effects that the proposed project may have on the species of concern. Juvenile and adult fish are extremely vulnerable to physical (i.e., siltation, dredging, trenching, rip-rap, hydrologic alterations) and chemical (i.e., pH, temperature, dissolved oxygen, organic contaminants, heavy metals) changes to their aquatic environment. Measures to prevent the release of sediment and harmful chemicals into waterways should be implemented. I recommend that you avoid any instream disturbance or water quality degradation during and after the project installation. Therefore, we recommend construction techniques that avoid instream work, sediment release, and changes to water quality and that fuel storage tanks for equipment re-fueling be located at least 100 feet away from waterways. Storm sewers and retention basins should be designed so as to minimize/remove all silt from the water before it is released into the stream. Strict erosion and sedimentation control measures, as well as best management practices should be employed.

Provided that these recommendations are followed, instream work is avoided, strict E&S control

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

measures are maintained, and best management practices are employed, we do not foresee any significant adverse impacts from the proposed activity to the fish species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Kathy Gipe at 814-359-5186 and refer to the SIR # 48051. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive style with a large, prominent initial "C".

Christopher A. Urban, Chief
Natural Diversity Section

CAU/KDG/dn



Pennsylvania Fish & Boat Commission

Division of Environmental Services

Natural Diversity Section
595 E Rolling Ridge Dr.
Bellefonte, PA 16823
814-359-5237

November 9, 2017

IN REPLY REFER TO
SIR# 48051

Stantec Consulting
Avani Patel
1060 Andrew Drive
West Chester, Pennsylvania 19380

RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 633107_1
MHIC
DELAWARE County: Lower Chichester Township, Marcus Hook Borough

Dear Avani Patel:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search “potential conflict” or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

Based on records maintained in the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files, the following rare or protected species are known from the vicinity of the project site:

Common Name (Scientific Name, PA Status)

Shortnose Sturgeon (*Acipenser brevirostrum*, Endangered)
Atlantic Sturgeon (*Acipenser oxyrinchus*, Endangered)
Eastern Redbelly Turtle (*Pseudemys rubriventris*, Threatened)

We are concerned about direct and indirect (i.e., runoff) effects that the proposed project may have on the species of concern. Juvenile and adult fish are extremely vulnerable to physical (i.e., siltation, dredging, trenching, rip-rap, hydrologic alterations) and chemical (i.e., pH, temperature, dissolved oxygen, organic contaminants, heavy metals) changes to their aquatic environment. Measures to prevent the release of sediment and harmful chemicals into waterways should be implemented. I recommend that you minimize any instream disturbance or water quality degradation during and after the project installation.

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Strict erosion and sedimentation control measures, as well as best management practices should be employed.

Provided that these recommendations are followed, instream work is avoided, strict E&S control measures are maintained, and best management practices are employed, we do not foresee any significant adverse impacts from the proposed activity to the species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

If you have any questions regarding this review, please contact Kathy Gipe at 814-359-5186 and refer to the SIR # 48051. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive, flowing style.

Christopher A. Urban, Chief
Natural Diversity Section

CAU/KDG/dn

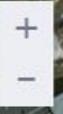
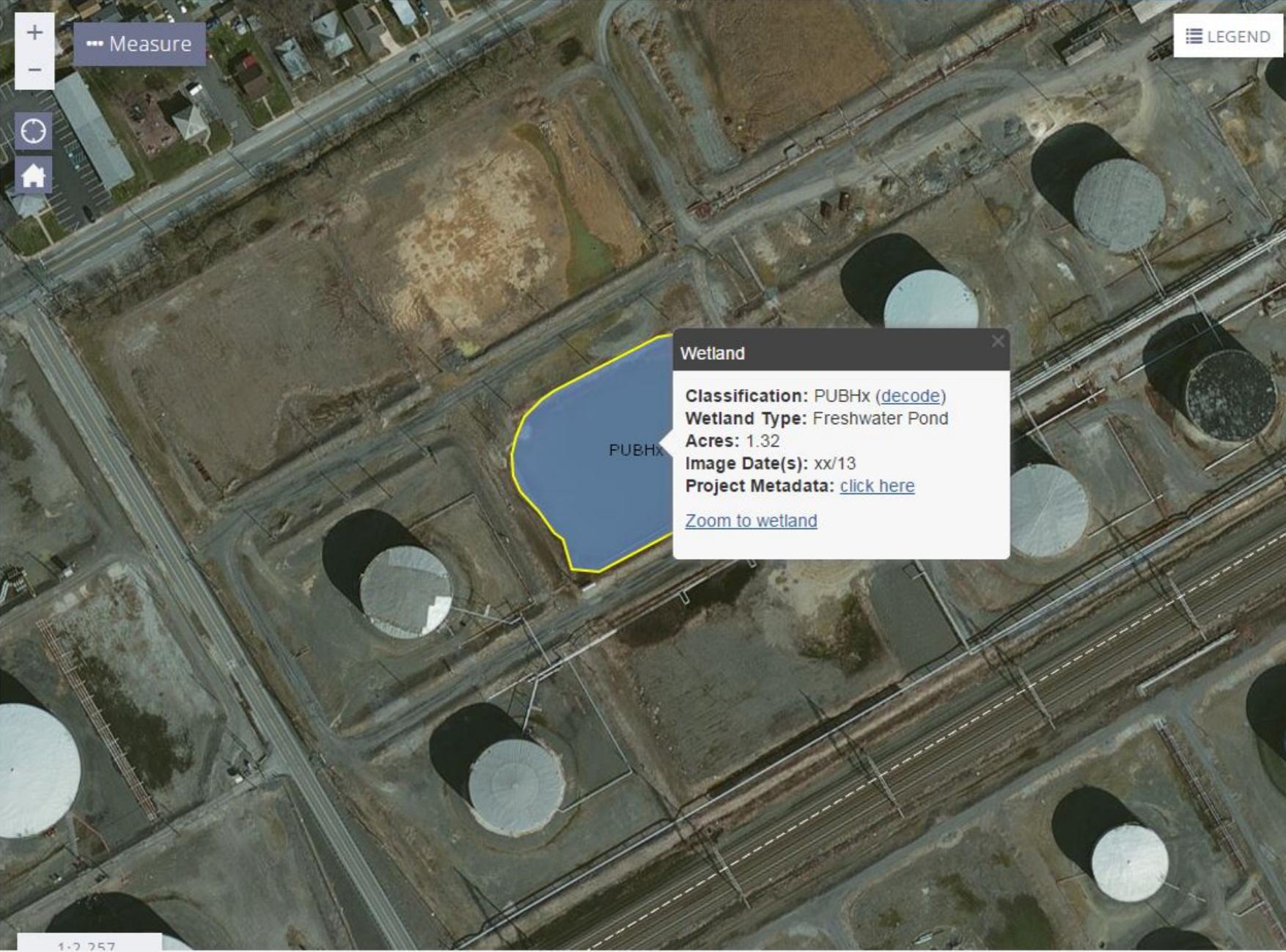


August 16, 2016

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Forested/Shrub Wetland |  | Other |
|  | Estuarine and Marine Wetland |  | Freshwater Pond |  | Riverine |
|  | Freshwater Emergent Wetland |  | Lake | | |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

- BASEMAPS >
- MAP LAYERS >
- Wetlands ⓘ ⓘ
 - Riparian ⓘ ⓘ
 - Riparian Mapping Areas ⓘ ⓘ
 - Data Source ⓘ ⓘ
 - Source Type
 - Image Scale
 - Image Year
 - Areas of Interest ⓘ
 - FWS Refuges ⓘ ⓘ
 - Historic Wetland Data ⓘ ⓘ



Measure

LEGEND



U.S. Fish & Wildlife Service

National Wetlands Inventory

Ecological Services

Enter Classification code: (Example: **L1UB1Hx**)

Optional: For geographically specific information*, please enter a State code: (Example: **TX** for Texas)

[CLICK HERE TO DECODE](#)

Description for code PUBHx:

P System **PALUSTRINE**: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

UB Class **UNCONSOLIDATED BOTTOM**: Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

H Water Regime **Permanently Flooded**: Water covers the substrate throughout the year in all years.

Other Modifier(s):

x SPECIAL MODIFIER **Excavated**: This Modifier is used to identify wetland basins or channels that were excavated by humans.

Observed **PA** Plant Specie(s) within the specified Attribute:

Scientific Name	Common Name	Indicator	Reference Info.
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